

FIG.1a

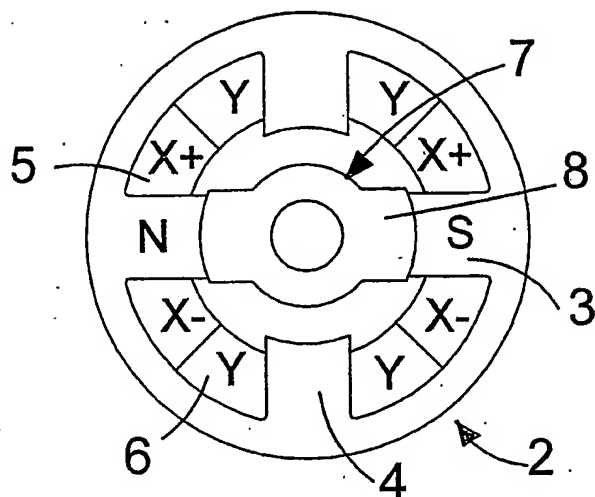


FIG.1b

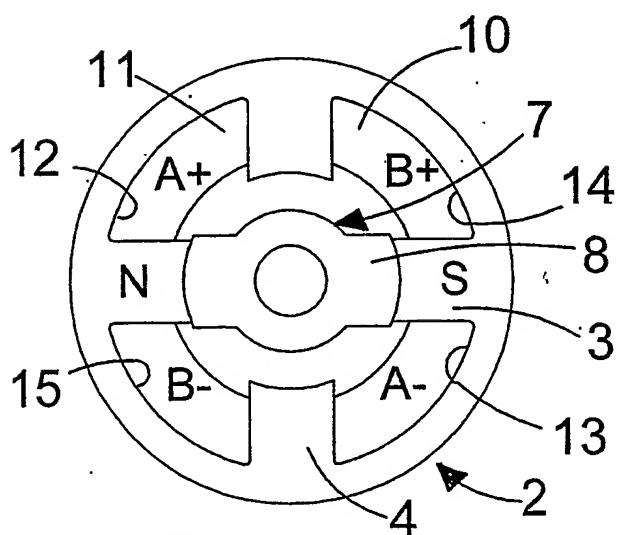
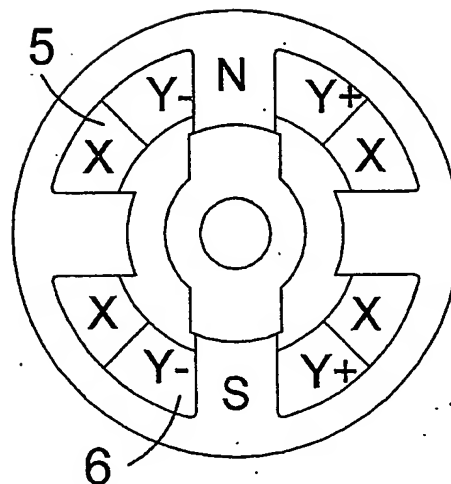


FIG.2a

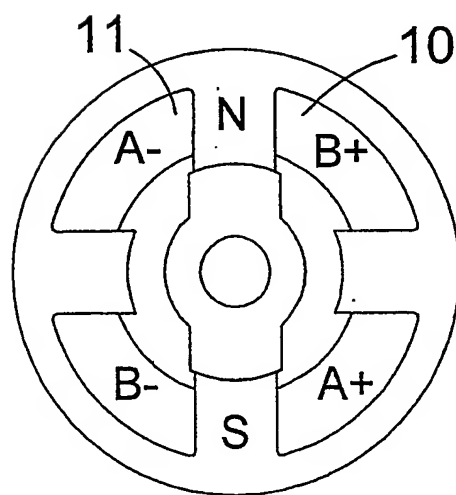
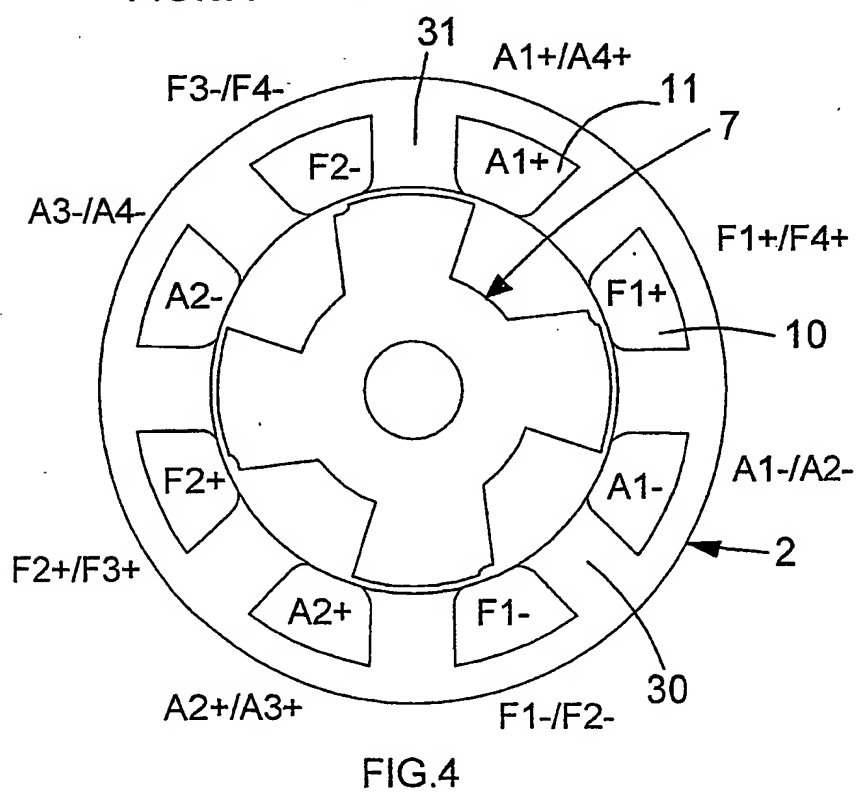
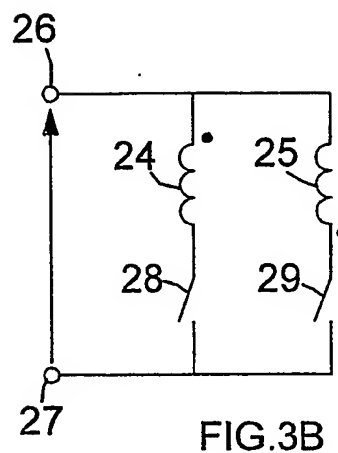
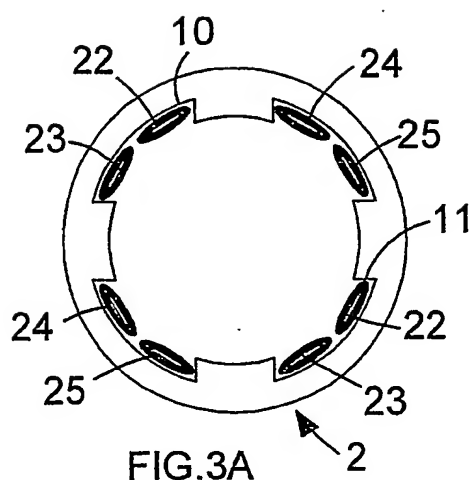


FIG.2b

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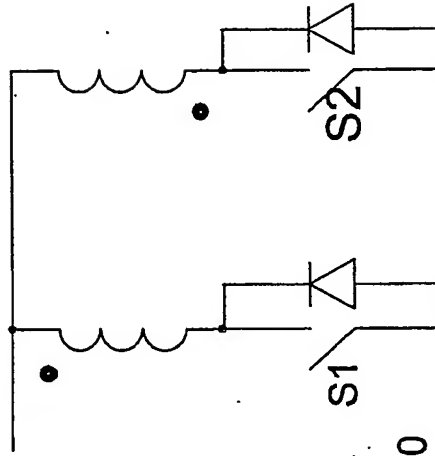


FIG. 5c

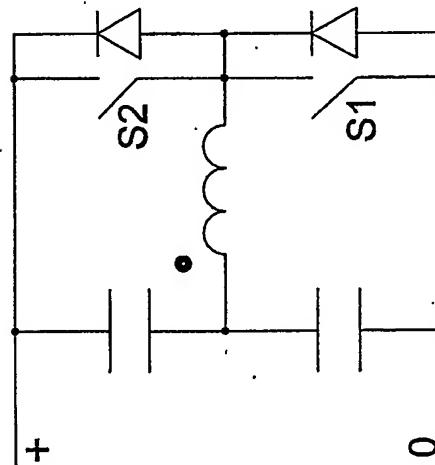


FIG. 5b

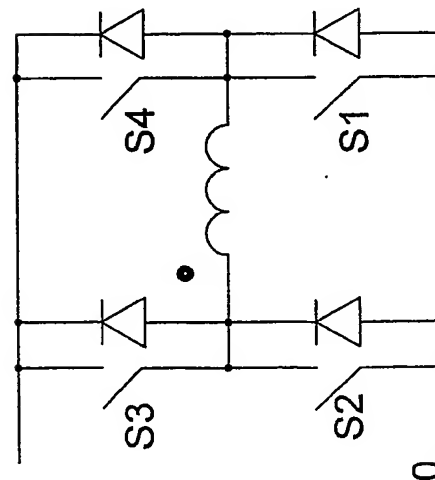


FIG. 5a

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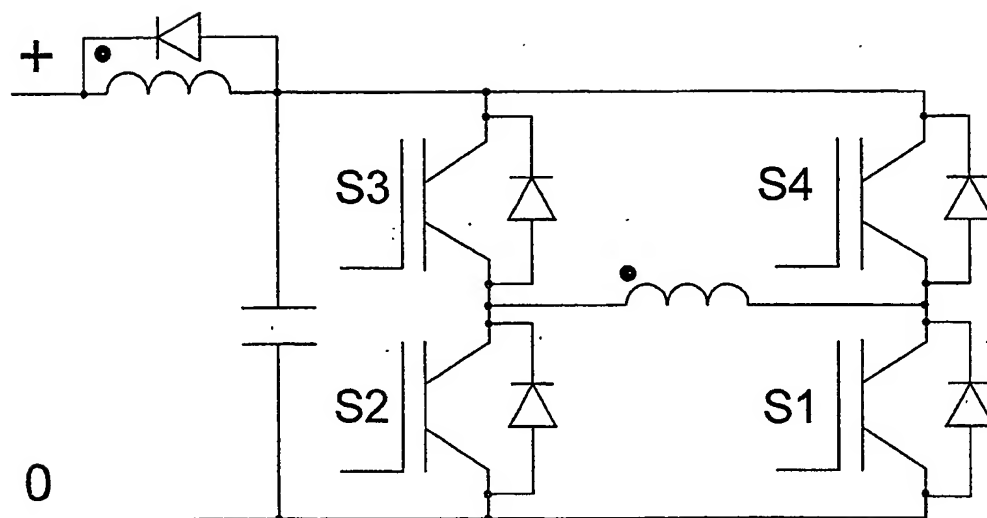


FIG.6a

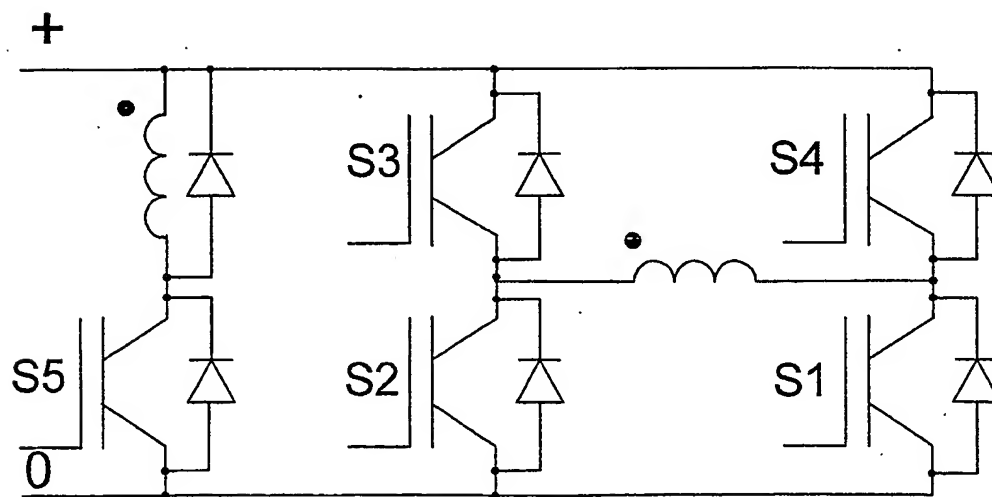


FIG.6b

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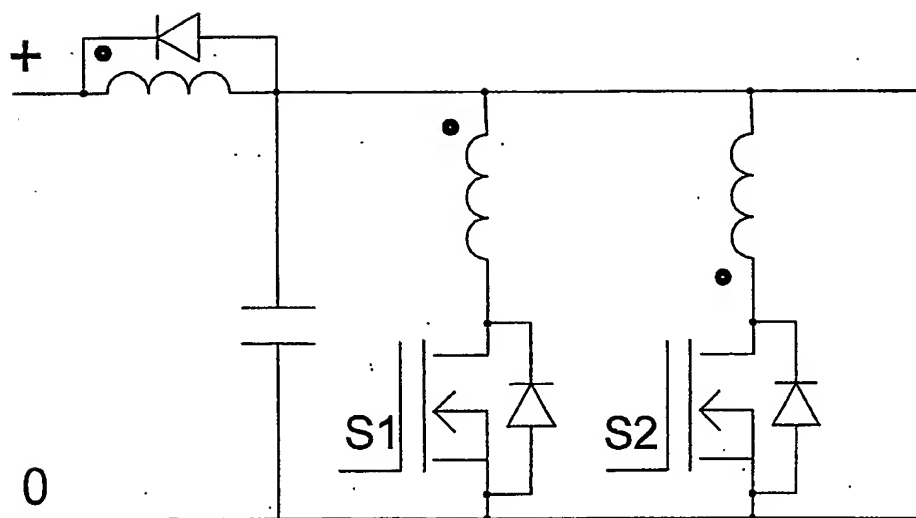


FIG.7a

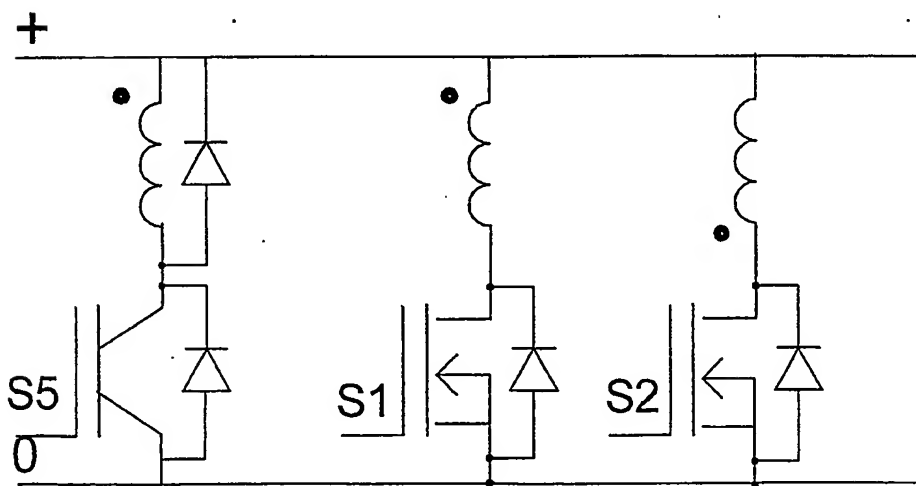


FIG.7b

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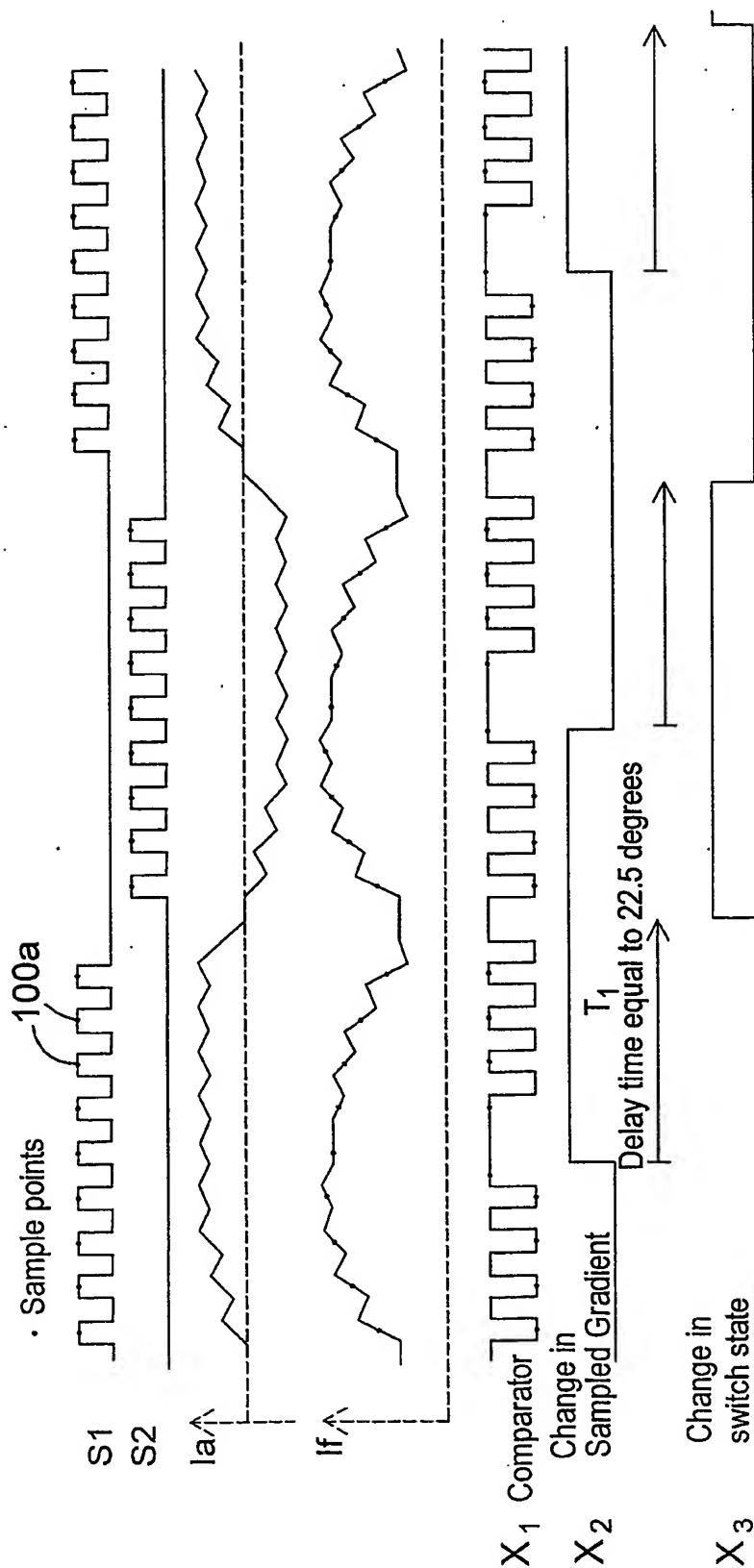


FIG.8

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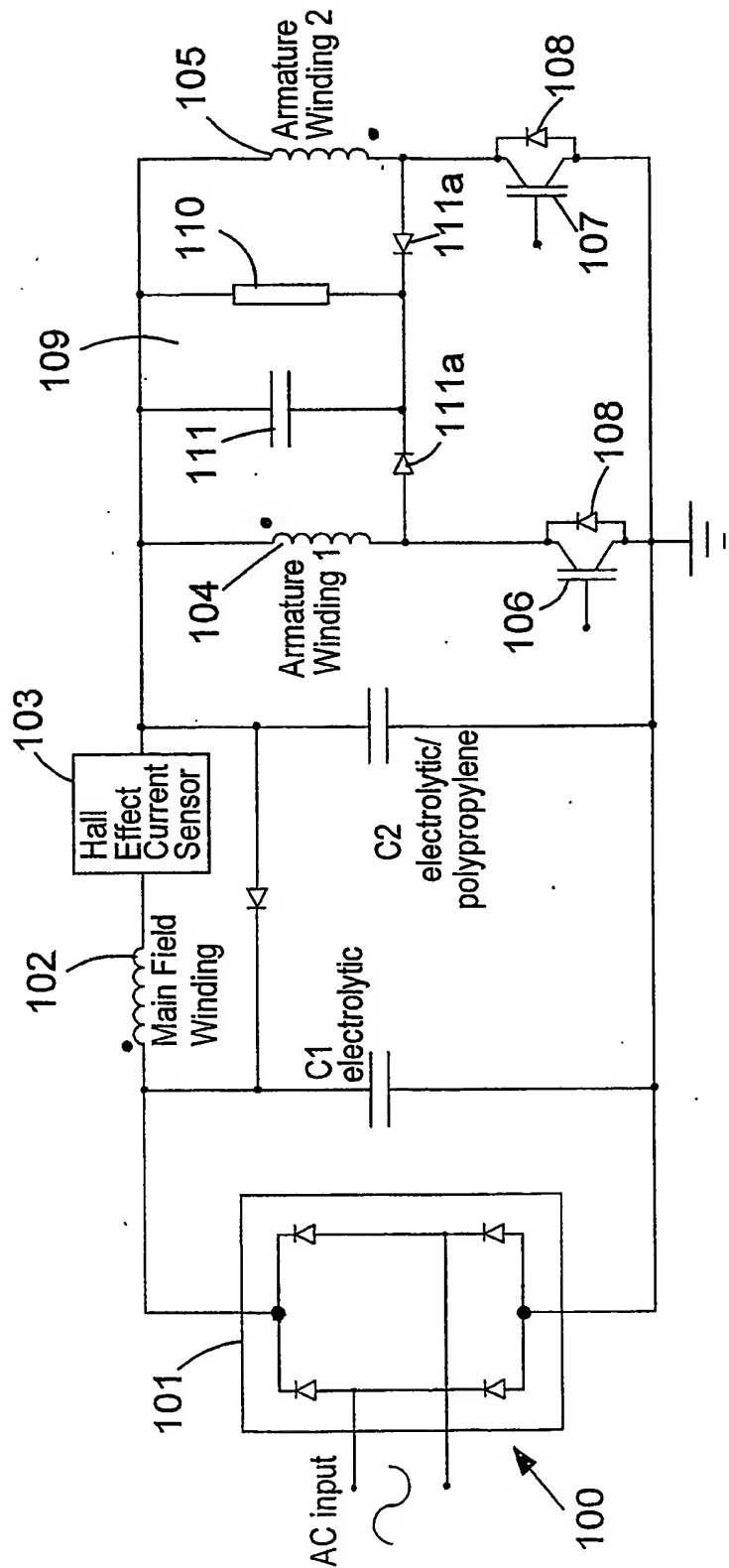


FIG.9a

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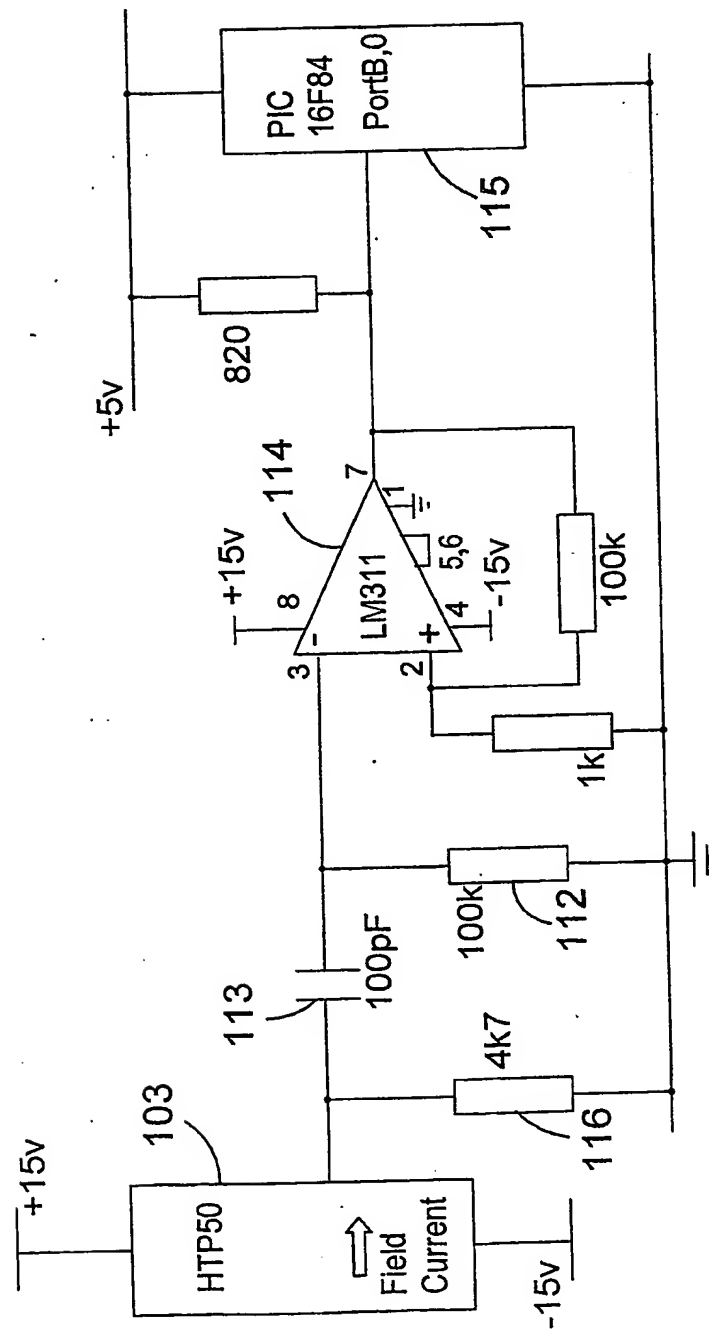


FIG.9b



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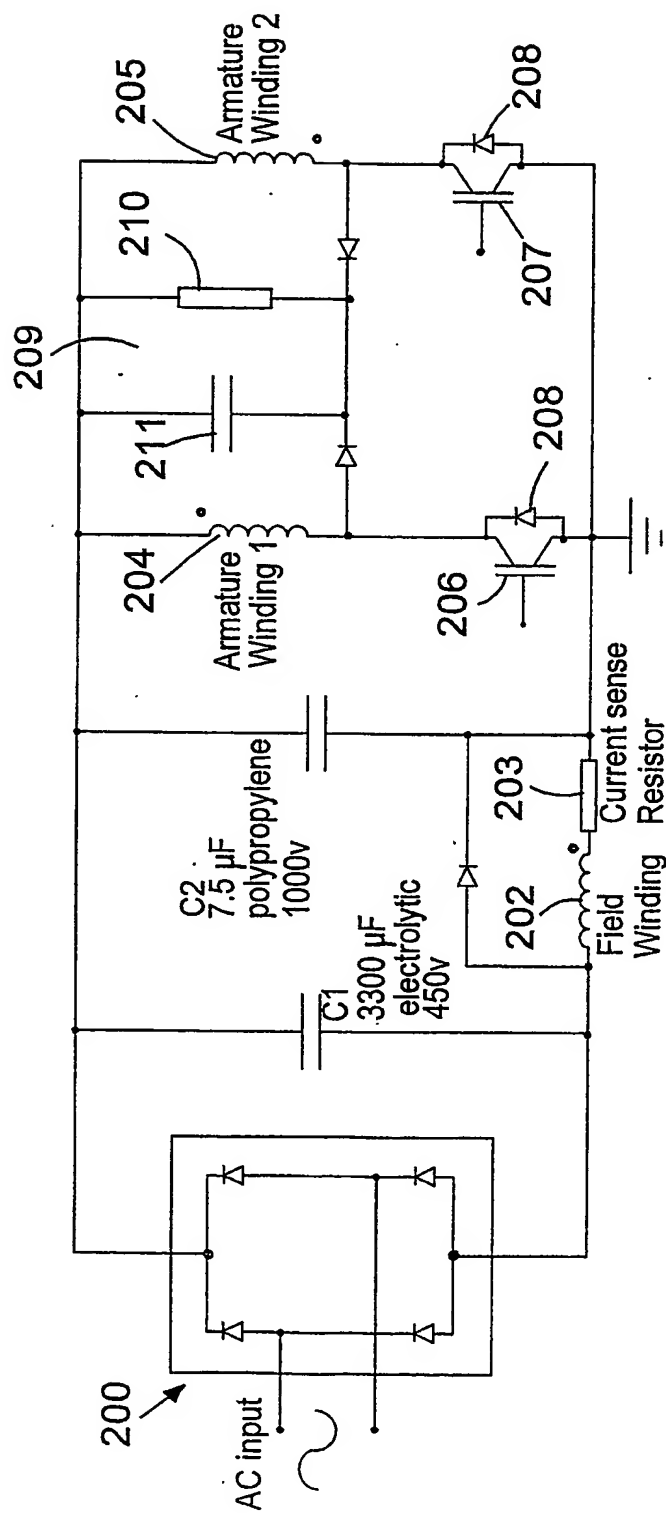


FIG. 10

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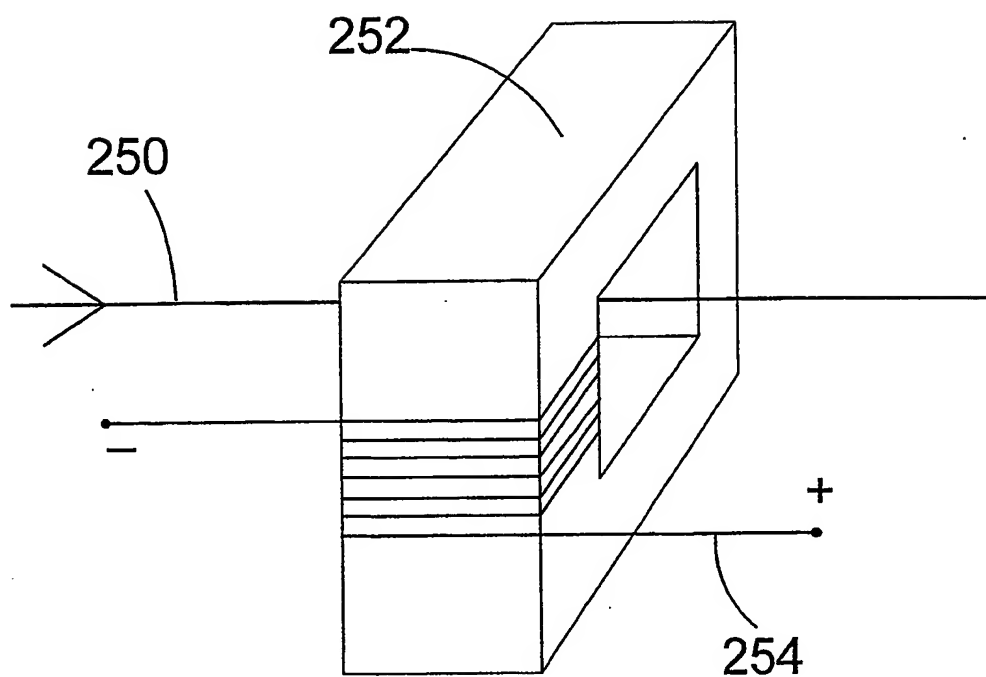


FIG.11a

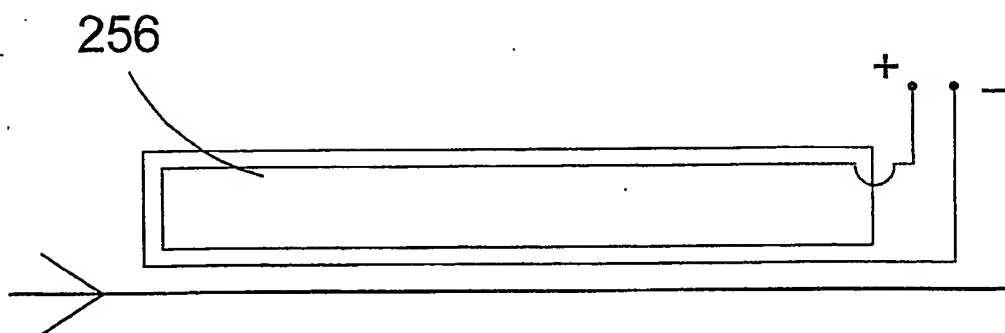


FIG.11b

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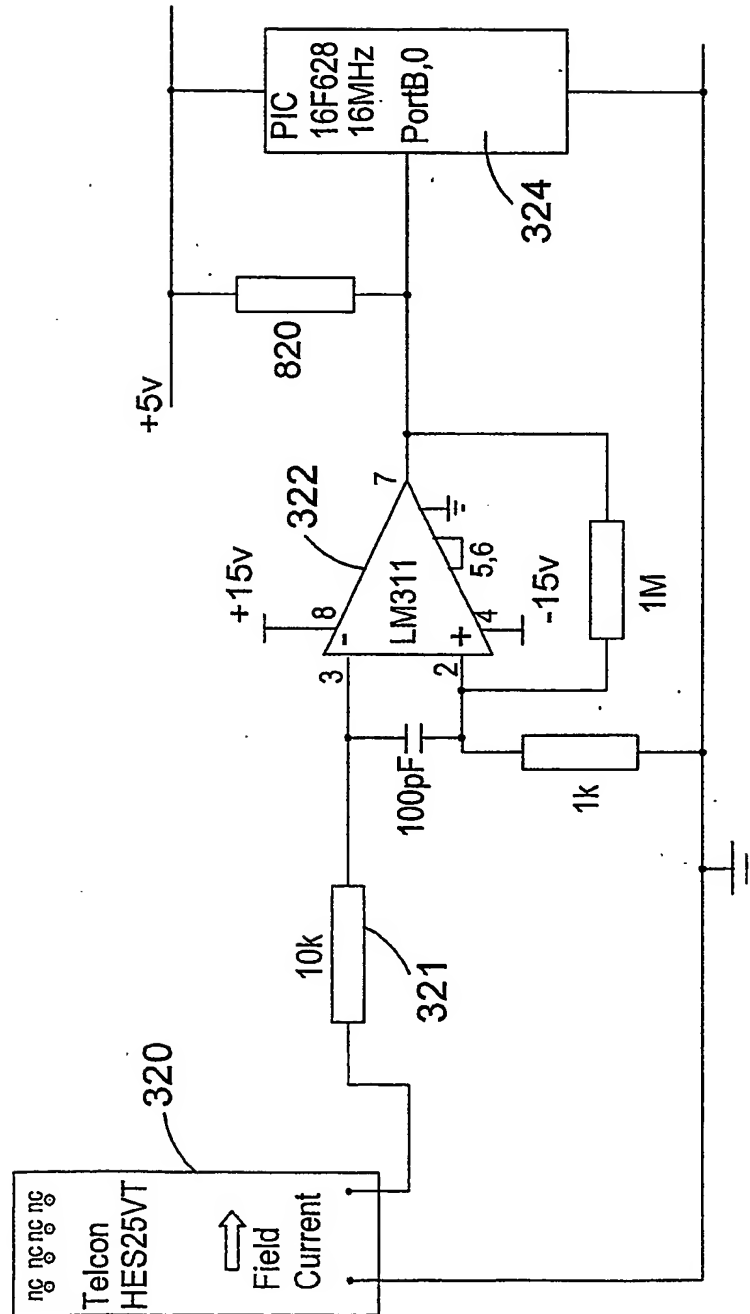


FIG.12

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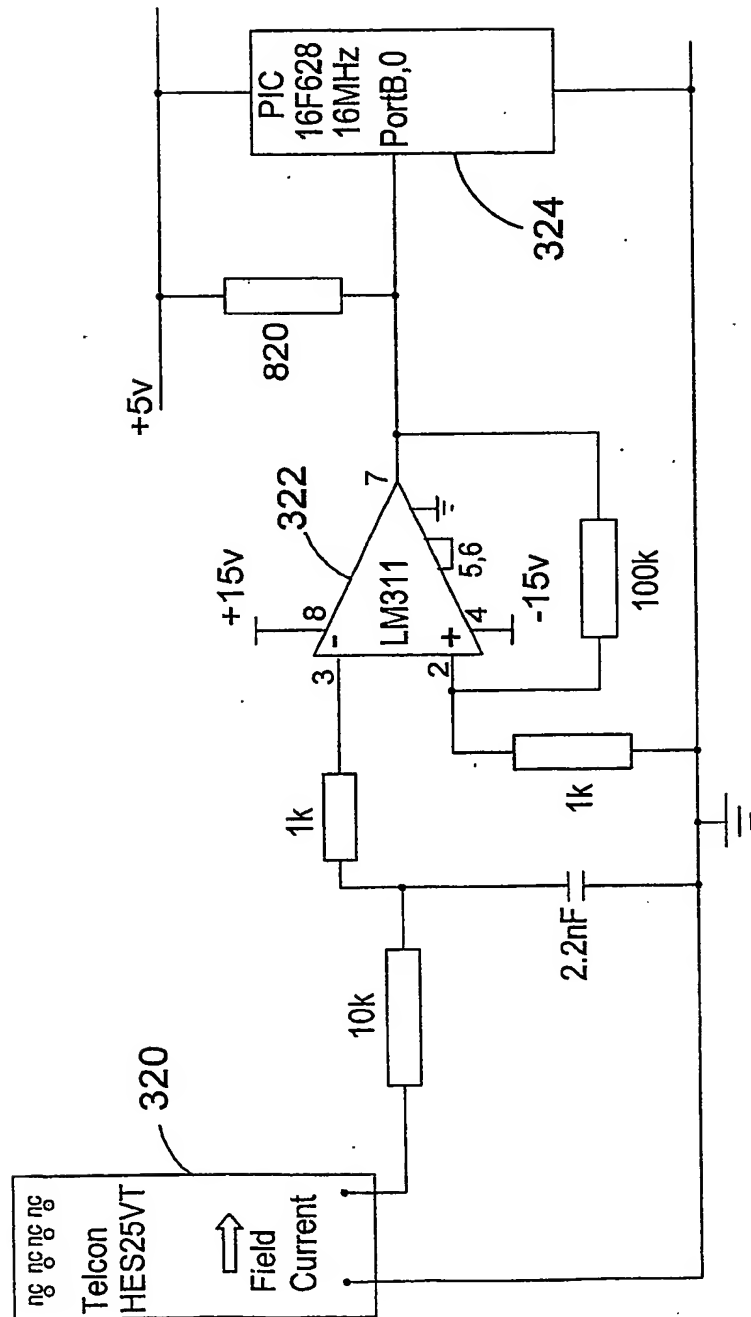


FIG.13

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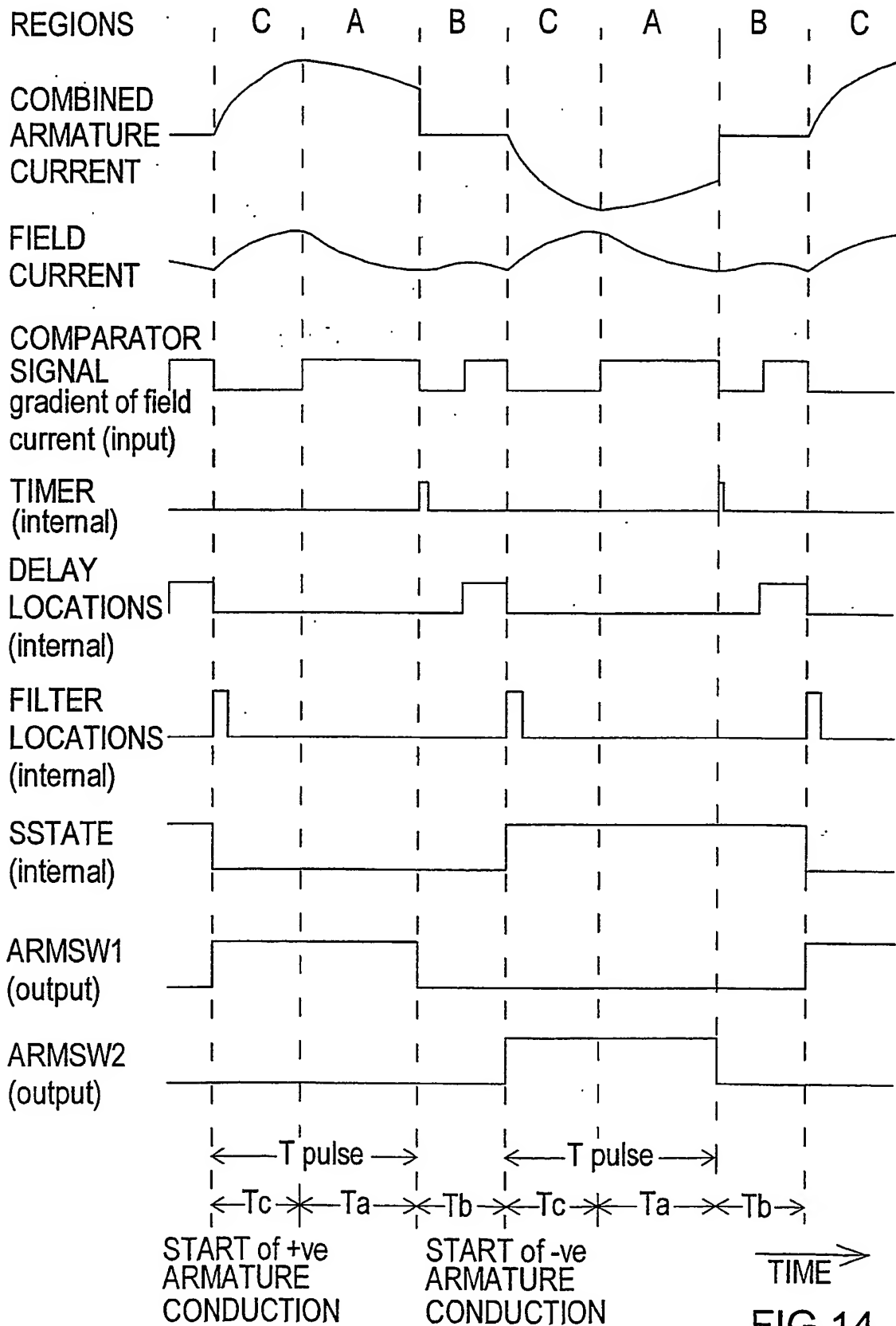


FIG.14

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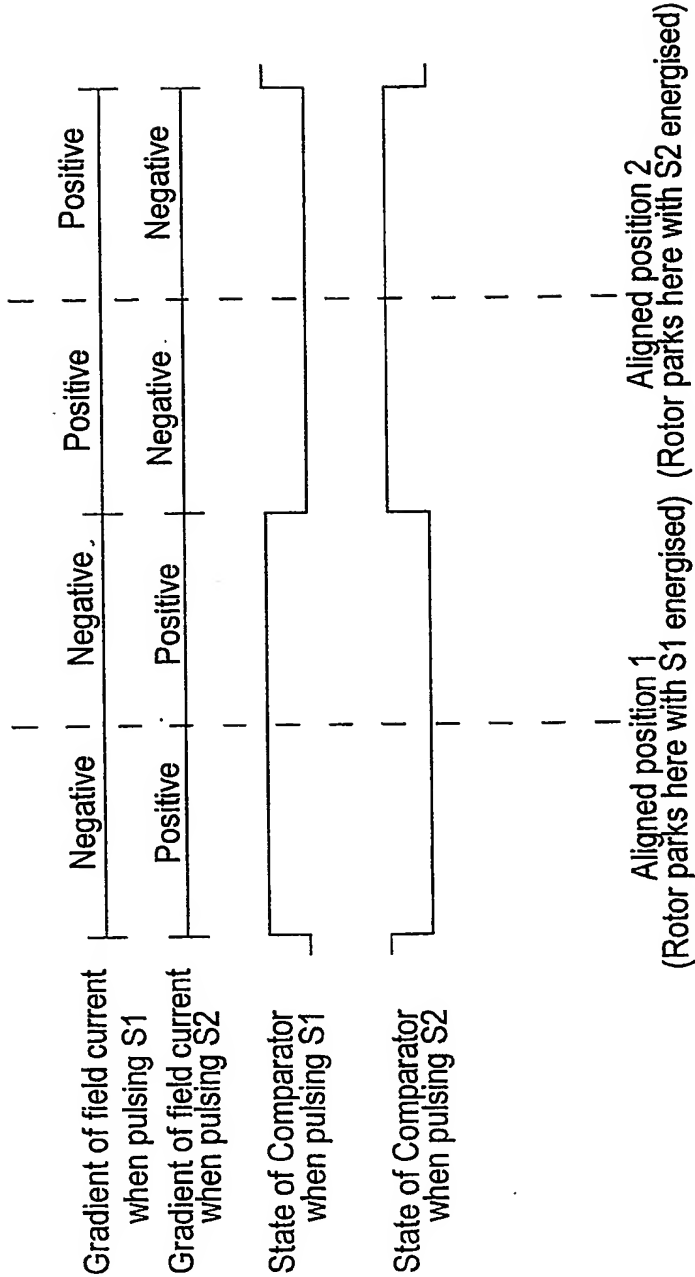
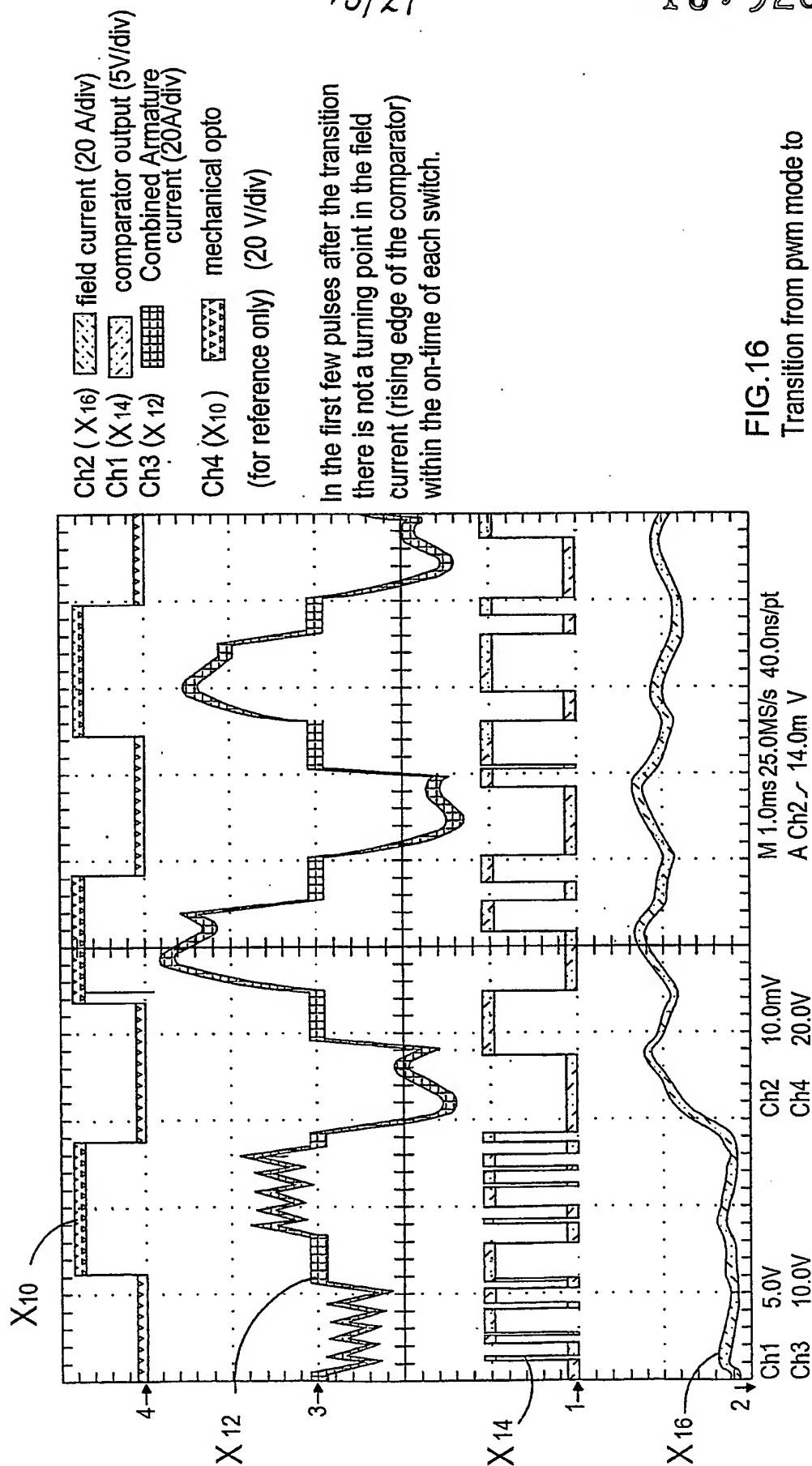


FIG.15

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**FIG.16**  
Transition from pwm mode to  
single pulse mode

In the first few pulses after the transition there is not a turning point in the field current (rising edge of the comparator) within the on-time of each switch.

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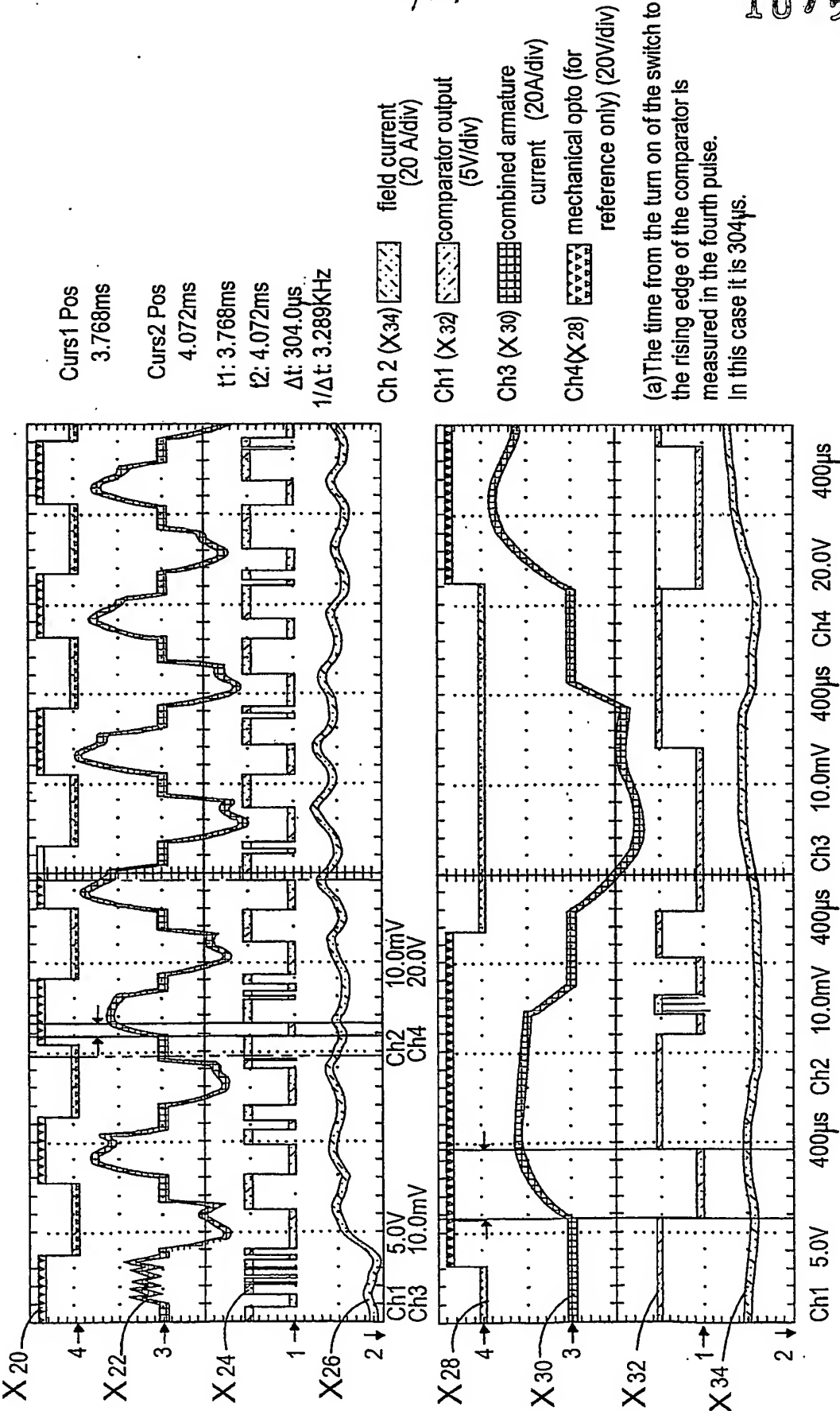
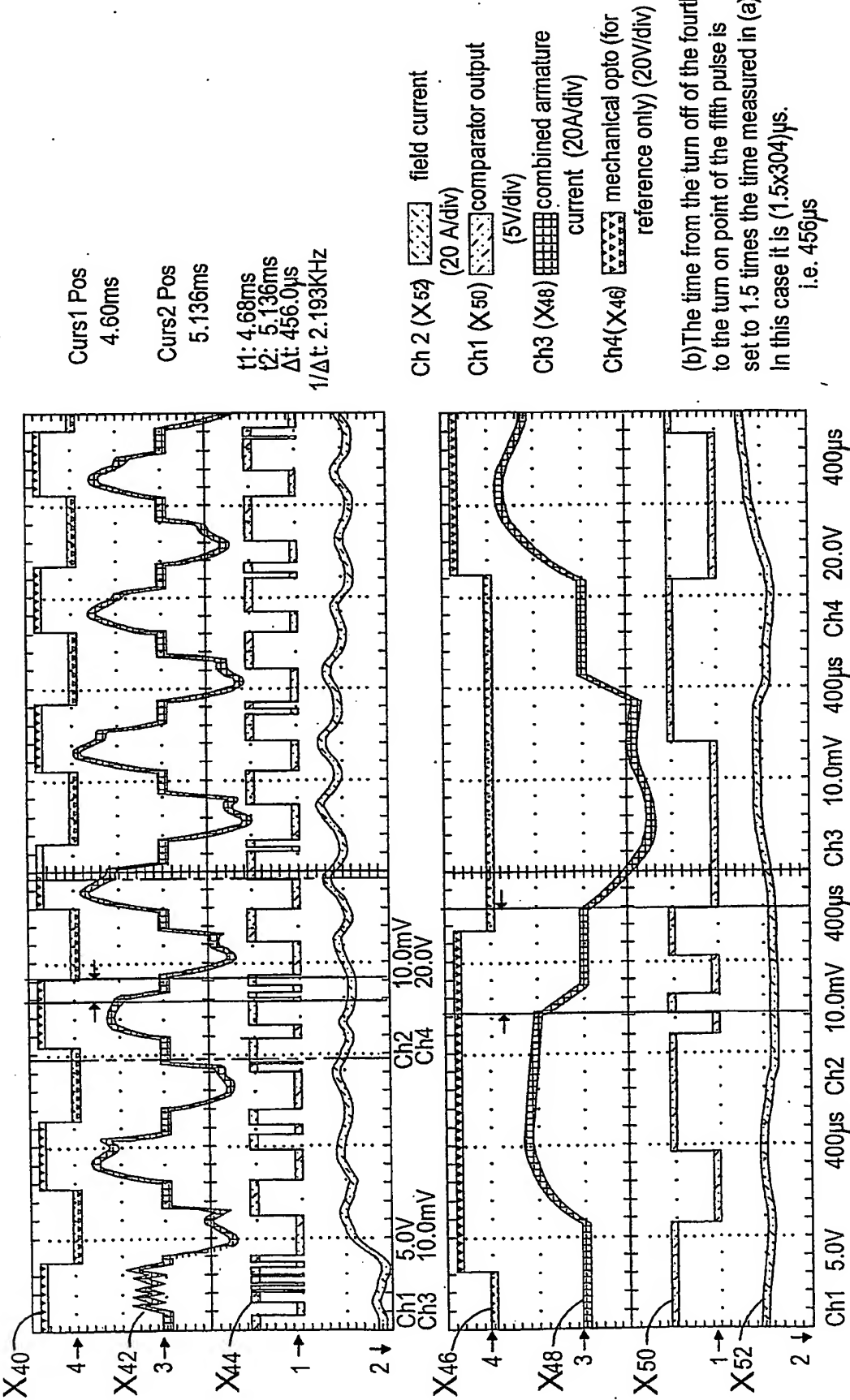


FIG.17a Adaptive pulse positioning between the fourth and fifth-driven pulses



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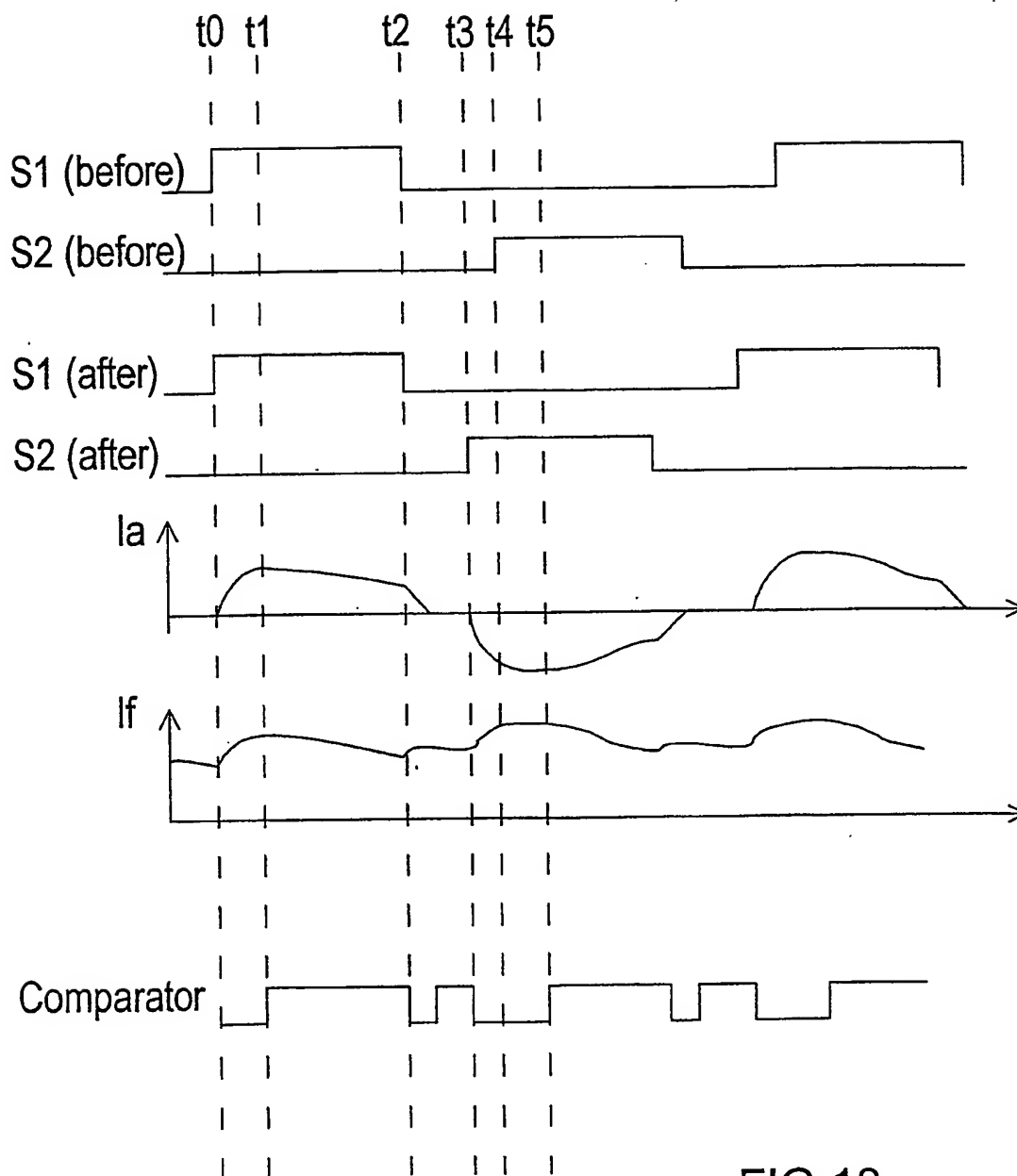
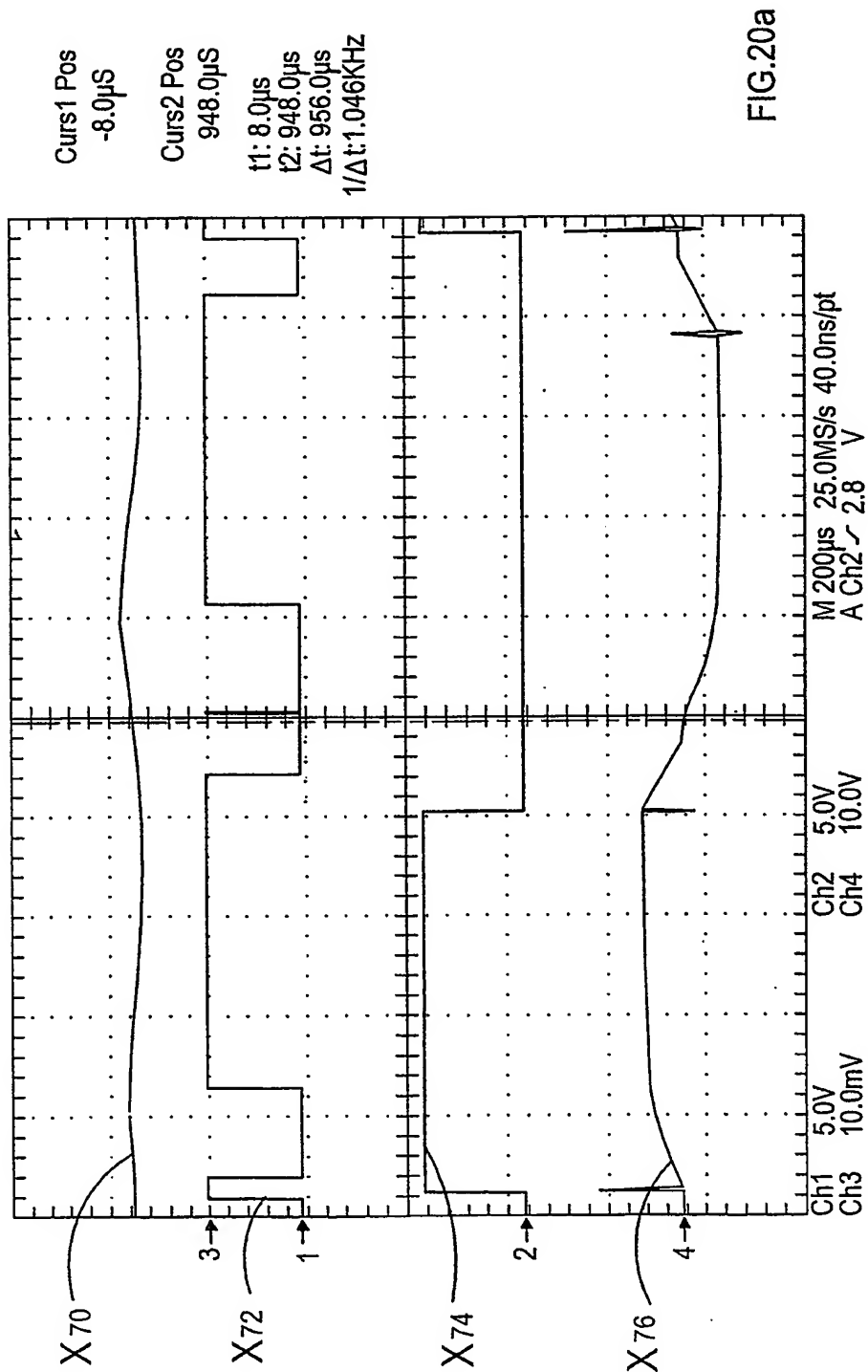


FIG.18

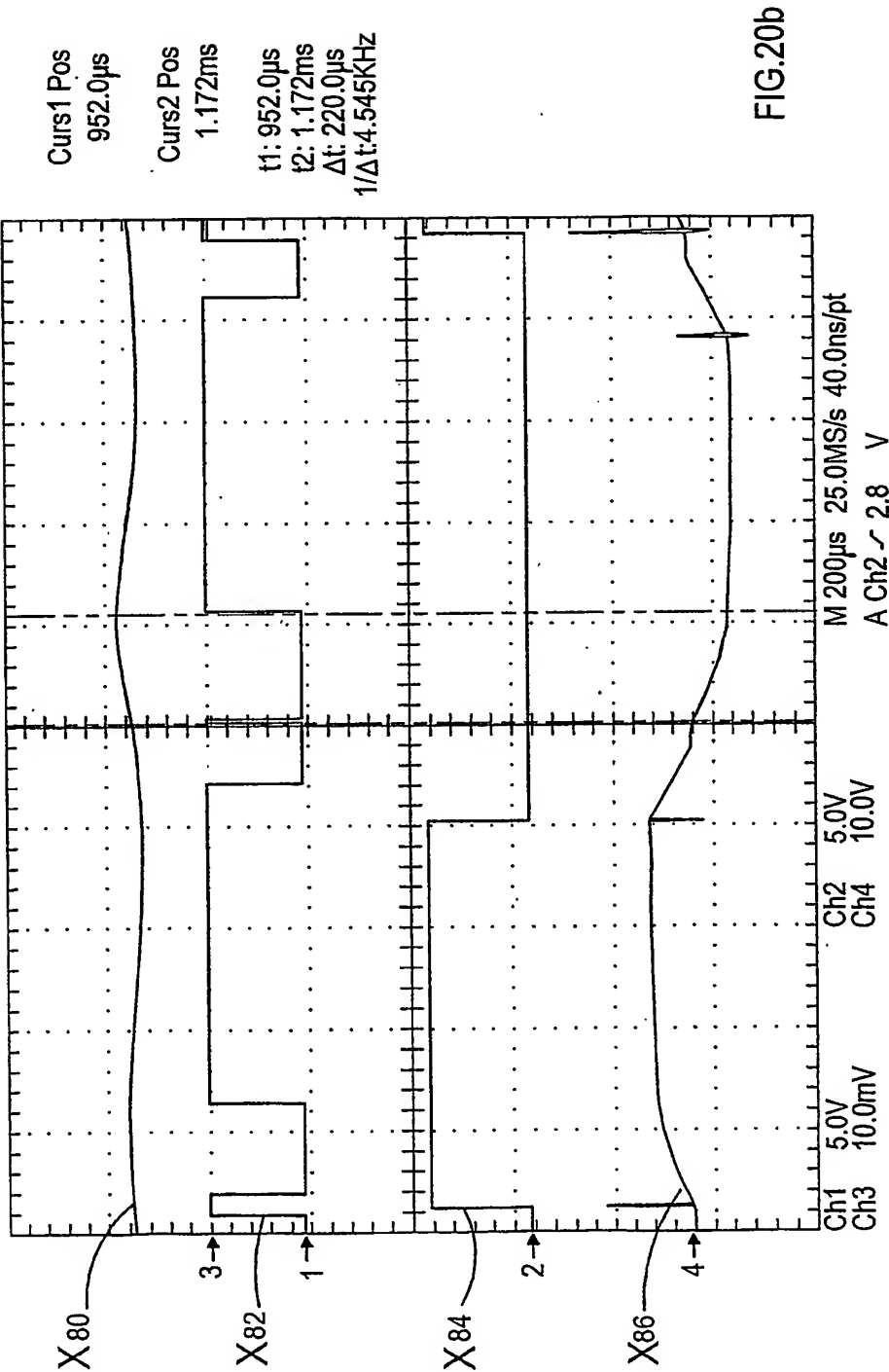
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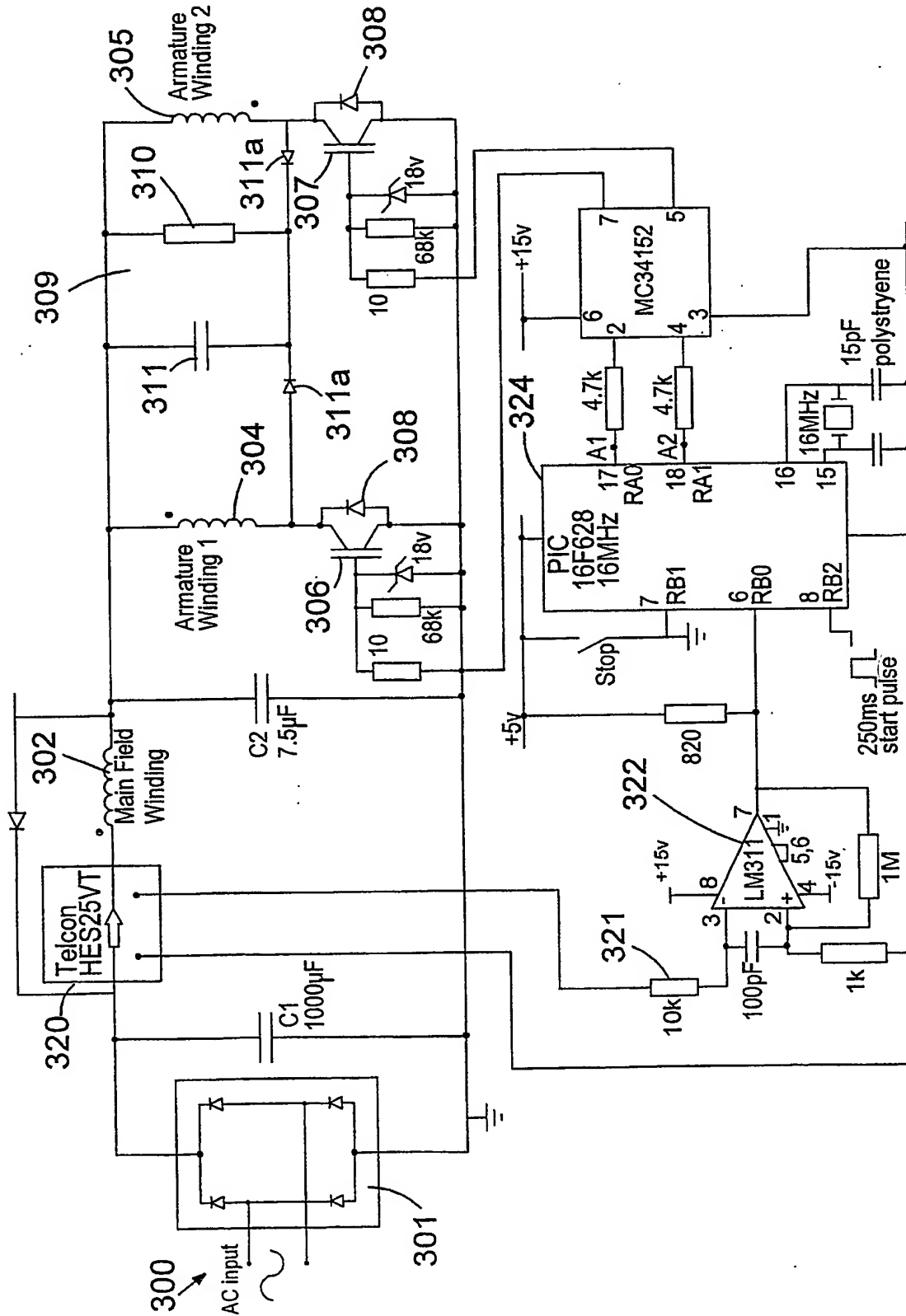


FIG.21 Sensorless Flux Switching Motor Control Circuit used in Load Tests

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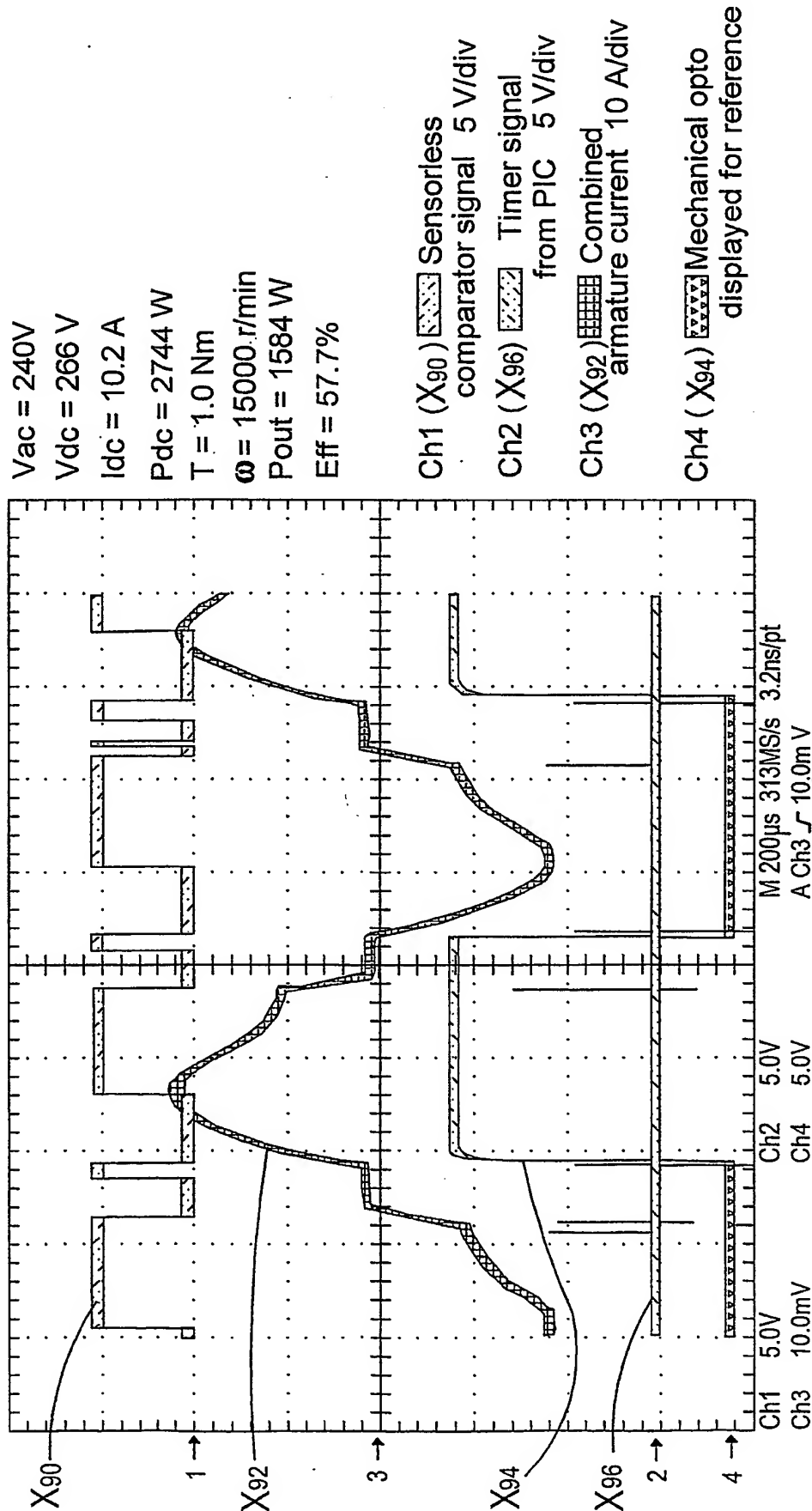
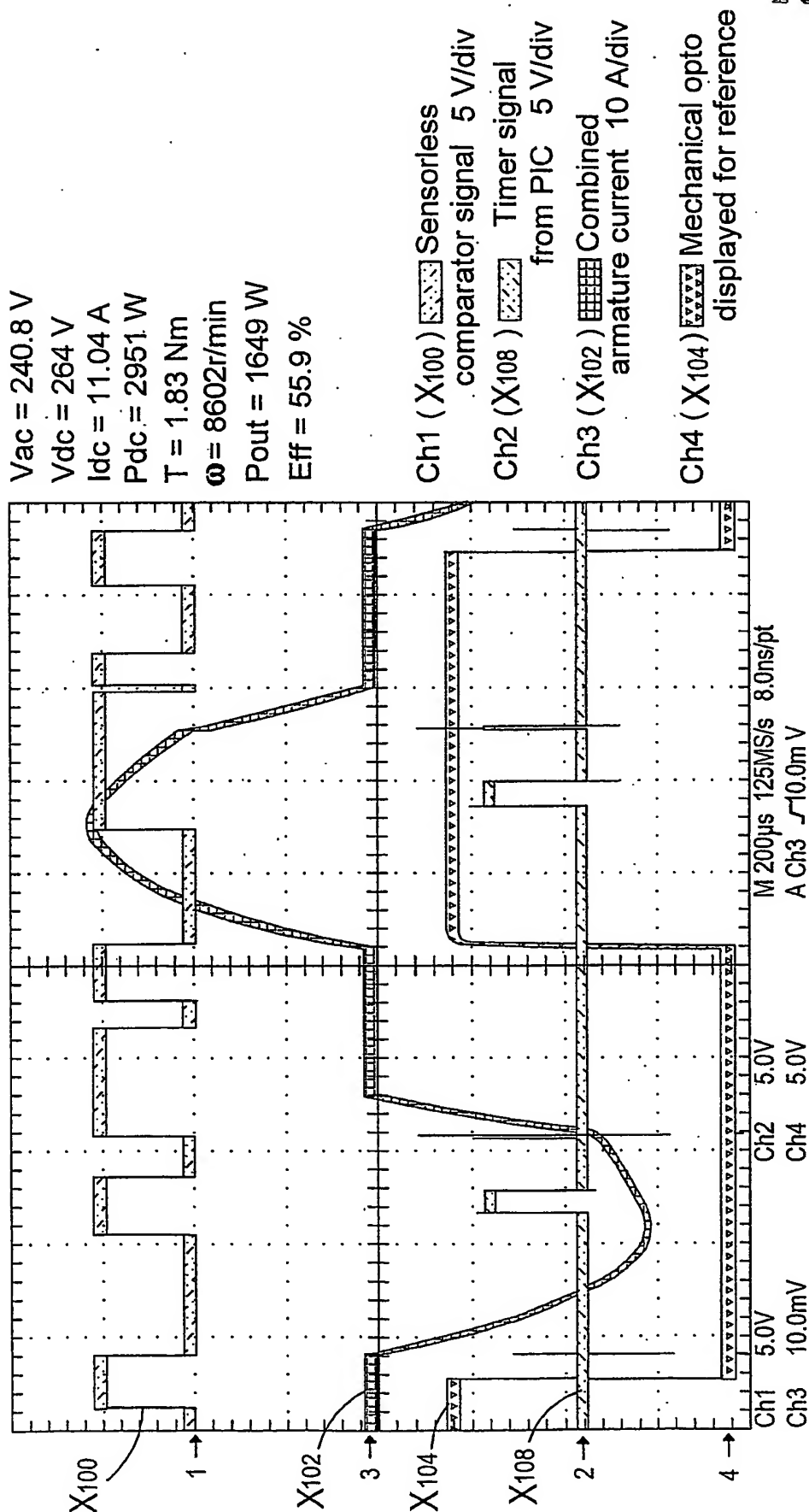


FIG.22 (part i)

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Results at 1.0 Nm and 1.8 Nm operating from 240 V ac.  
 Constant output power is maintained between these two points.

FIG.22 (part ii)

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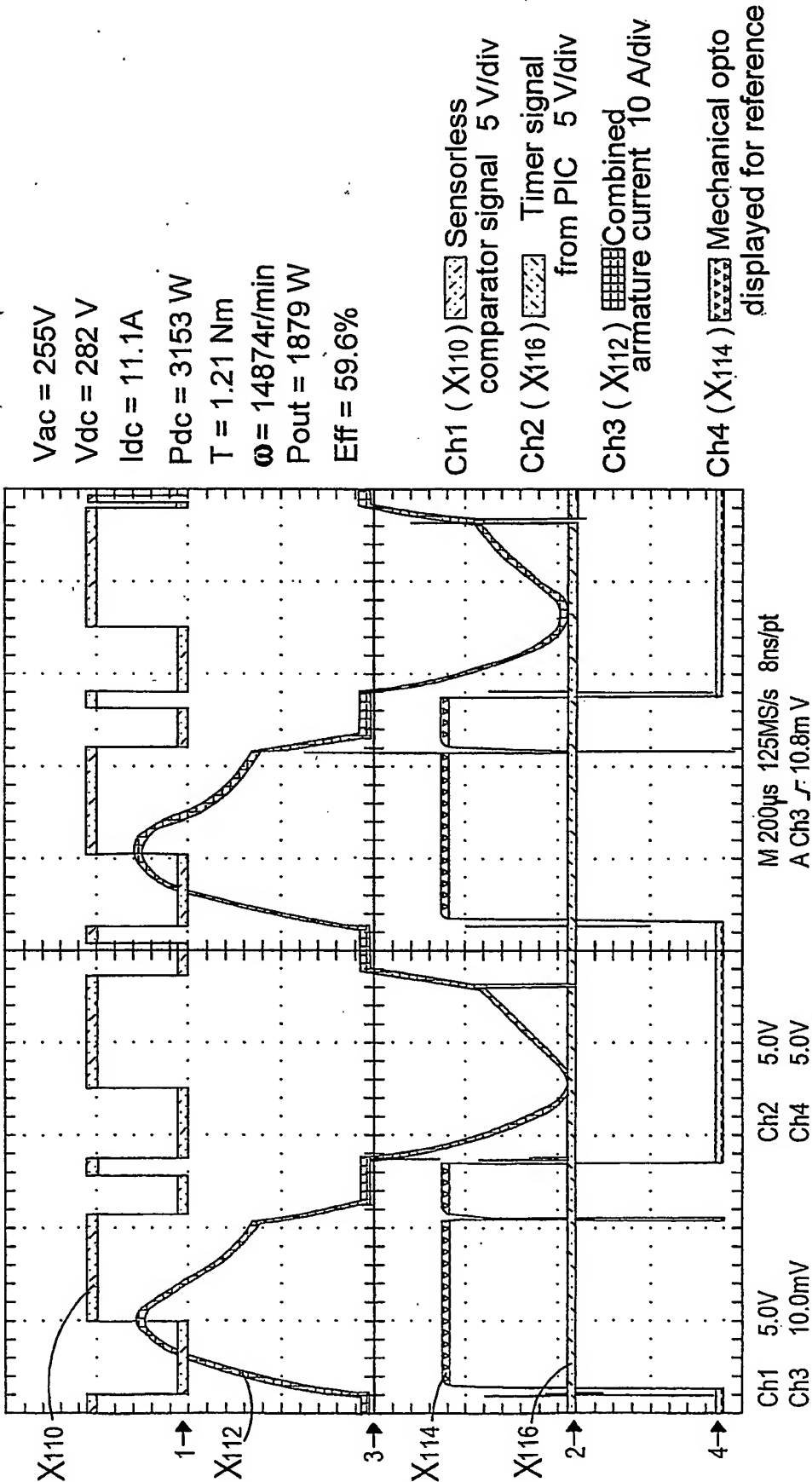


FIG.23 (part i) Results at 1.2 Nm and 1.93 Nm operating from 280 V dc (255 V ac)  
Constant output power of around 1860 W is maintained between these two points.



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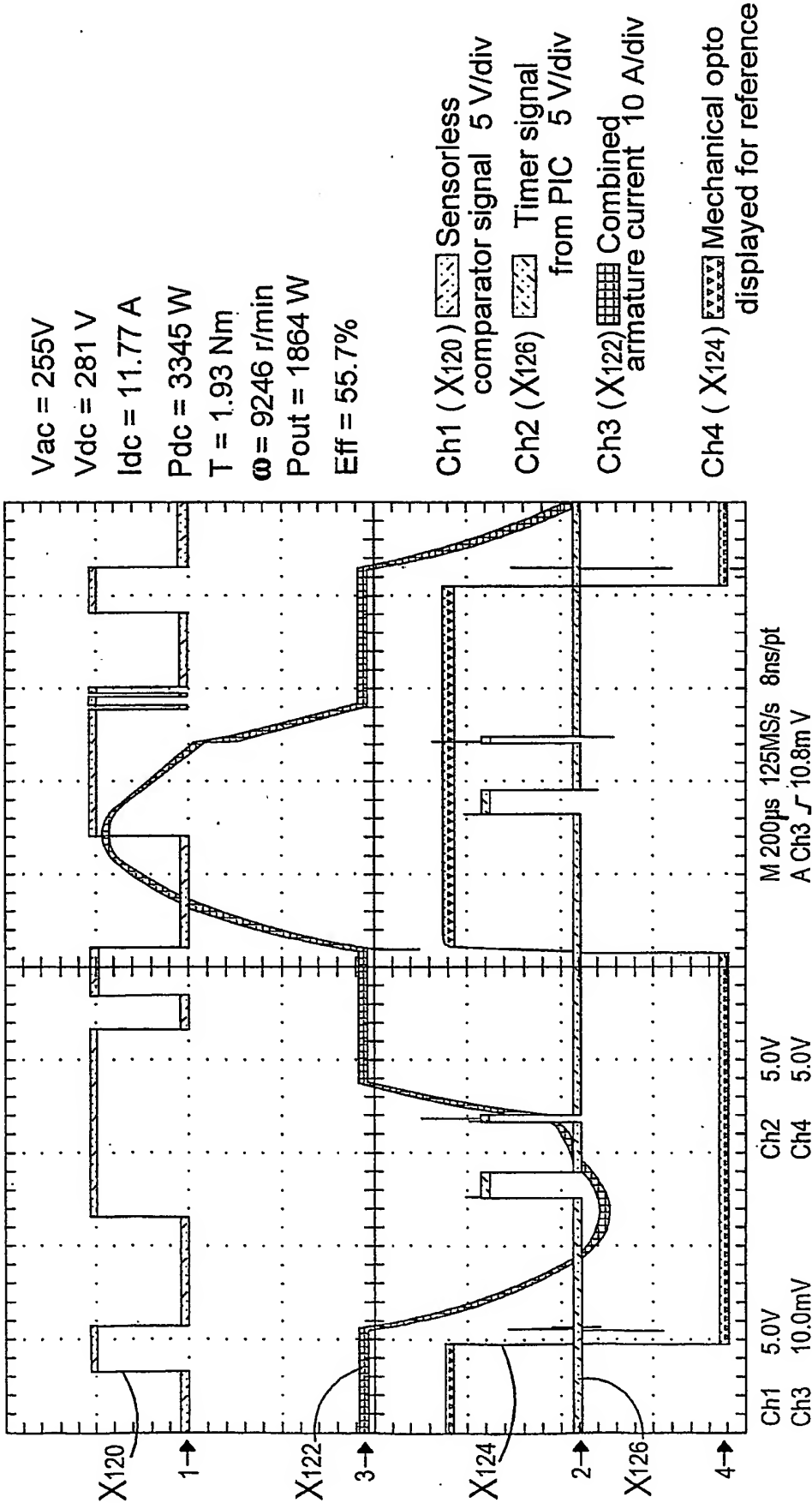
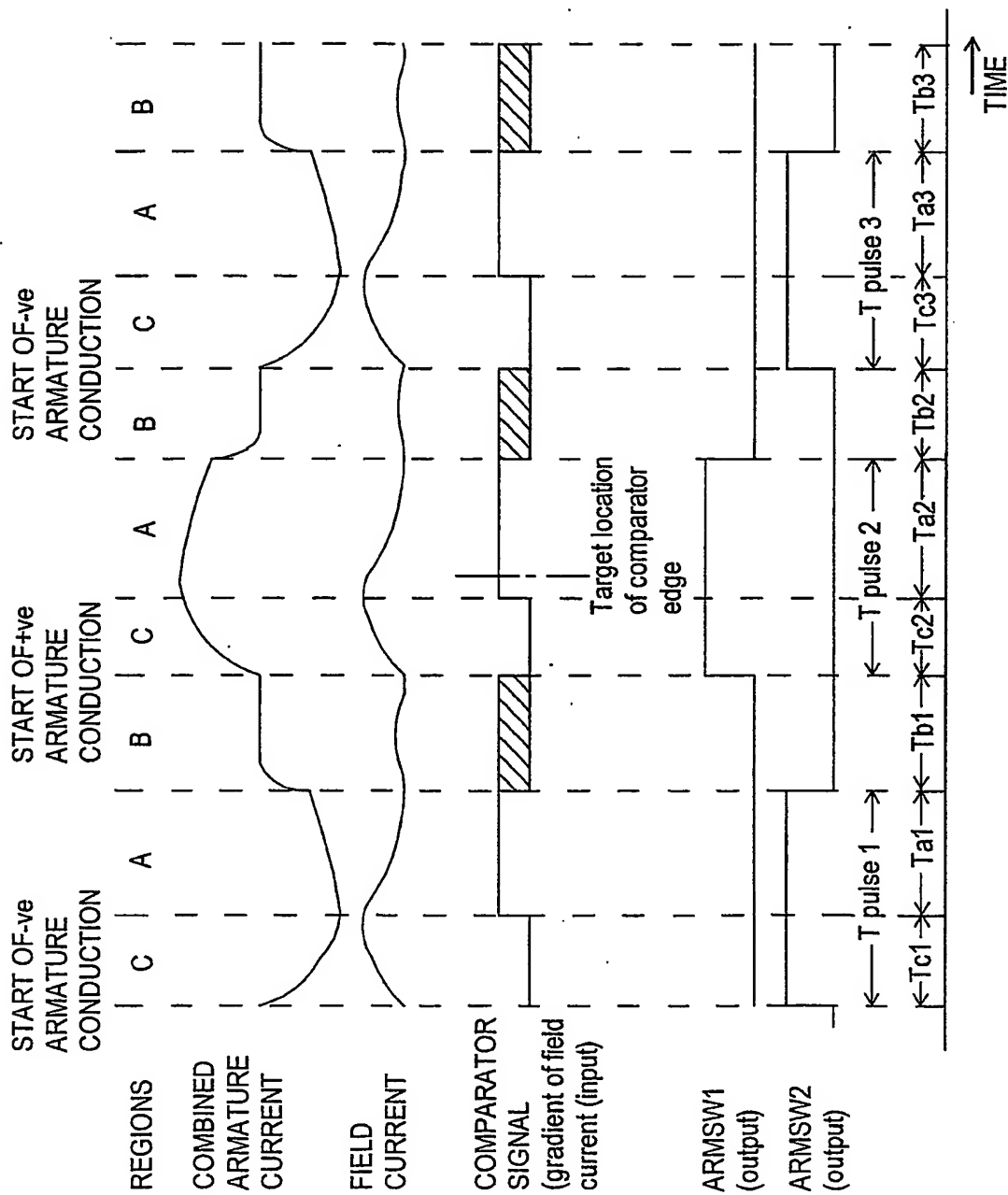


FIG.23 (part ii)

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**FIG.24**

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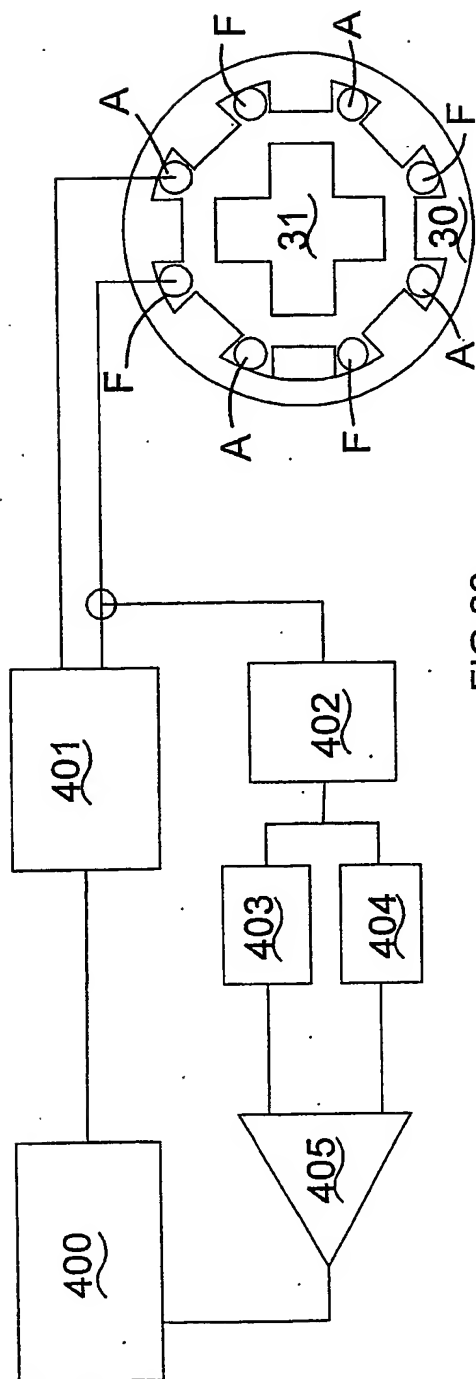


FIG. 26

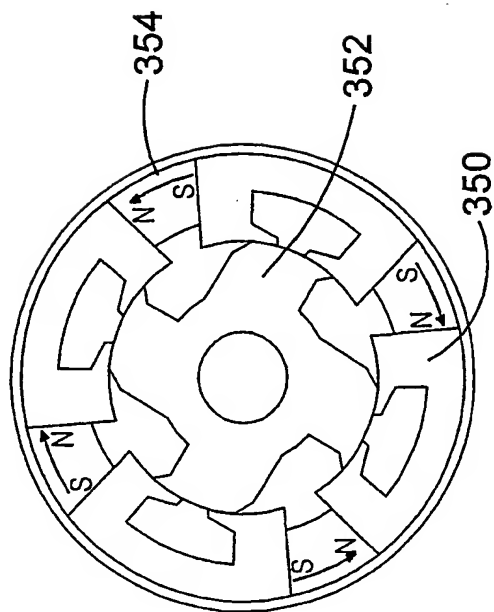


FIG. 25